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Evans

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[54] **HYDROGEL CONTACT LENS**

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[52] **U.S. Cl.** ..... **351/160 H;** 351/161

[58] **Field of Search** ..... 351/160 H, 160 R, 161

[56] **References Cited**

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[57] **ABSTRACT**

A soft contact lens provided with a front surface whose cross section describes the curve whose equation, in polar coordinates, is $\rho = R + kR(1-\cos\theta)/(1+\cos\theta)$ where R is the radius of curvature of a spherical lens of power equal at least approximately to the most hyperopic (or least myopic) power meridian of the ametropia plus about one-half of any presbyopic addition required by the patient, and k is a constant of eccentricity which may vary with the hydrophilic properties of the lens material and is determined for each material such that the visual acuity for distance and near vision is 20/20 or better with the aforesaid R value. The value of k lies within the range 0.005 to 0.1.

16 Claims, 2 Drawing Figures